

Date: Tuesday, 11/14/2006 10:10:53 AM  
 User: Kim Johnston

## Process Sheet

Customer	: CU-DAR001 Dart Helicopters Services	Drawing Name	: 206 A/B HIGH GEAR SKIDTUBE
Job Number	: 29442		
Estimate Number	: 10161		
P.O. Number	: N/A	Part Number	: D206642211
This Issue	: 11/14/2006 S.O. No. : N/A	Drawing Number	: N/A
Prsht Rev.	: NC	Project Number	: N/A
First Issue	: N/A Type : LANDING GEAR	Drawing Revision	: N/A
Previous Run	: 29441	Material	: N/A
Written By	: <u>KS 06.11.14</u>	Due Date	: 12/5/2006 Qty: 1 Um: Each
Checked & Approved By	: <u>KS 06.11.14</u>		
Comment	: Est Rev: 04.08.06 Revised Step 4 per CHG003 KJ/JLMJ 0 4.08.06		

## Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0	DC	DOCUMENT CONTROL
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Comment: DOCUMENT CONTROL

Photocopy bluefile &amp; type labels per PPP206-642-211 CHG004

KS 06.11.14

2.0	29442A	HIGH GEAR SKIDTUBE ASSEMBLY 206 A/B
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Comment: Sub-Component HIGH GEAR SKIDTUBE ASSEMBLY 206 A/B

D206-642-241 B 29442

3.0	PACKAGING 1	PACKAGING RESOURCE #1
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Comment: PACKAGING RESOURCE #1

Pick Packing Kit

4.0	D206651041	206 A/B GHW Kit
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Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

1 D206-651-041 GHW Kit B27963

5.0	D2652	Bushing
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Comment: Qty.: 16.0000 Each(s)/Unit Total : 16.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

16 D2652 Bushing B29996

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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Job Number: 29442

Part Number: D206642211

Job Number:



Seq. #:

Machine Or Operation:

Description :

6.0

D2655

Ring



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Pick: Packing Kit

Qty Part Number

Description Batch

1 D2655

Tow Ring

B28856 ✓ ✓

7.0

D26651

Saddle, LH Fwd Aft Out



Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)

Pick: Packing Kit

Qty Part Number

Description Batch

2 D2665-1

Saddle

B25915 ✓

8.0

D26661

Saddle, LH, Fwd, Aft, In



Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)

Pick: Packing Kit

Qty Part Number

Description Batch

2 D2666-1

Saddle

B27966 ✓ ✓

9.0

D2712

Set Screw



Comment: Qty.: 10.0000 Each(s)/Unit Total : 10.0000 Each(s)

Pick: Packing Kit

Qty Part Number

Description Batch

10 D2712

Set Screw

B26481 ✓ ✓

10.0

D2884

Saddle Spacer



Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)

SADDLE SPACER

Batch:

B28259 ✓ ✓

11.0

D2885

Saddle Spacer



Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)

Saddle Spacer

B27968 ✓ ✓

W/O:		WORK ORDER CHANGES					
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Job Number: 29442

Part Number: D206642211

Job Number:



Seq. #:

Machine Or Operation:

Description :

12.0

AN341A

Bolt



Comment: Qty.: 8.0000 Each(s)/Unit Total : 8.0000 Each(s)

Pick: Packing Kit

Qty Part Number

Description Batch

8 AN3-41A

Bolt M102850 - ✓ ✓

13.0

AN45A

Bolt



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Pick: Packing Kit

Qty Part Number

Description Batch

1 AN4-5A

Bolt M100857 - ✓ ✓

14.0

AN46A

Bolt



Comment: Qty.: 12.0000 Each(s)/Unit Total : 12.0000 Each(s)

Pick: Packing Kit

Qty Part Number

Description Batch

12 AN4-6A

Bolt M102389 - ✓ ✓

15.0

AN57A

Bolt



Comment: Qty.: 4.0000 Each(s)/Unit Total : 4.0000 Each(s)

Pick: Packing Kit

Qty Part Number

Description Batch

4 AN5-7A

Bolt M102140 - ✓ ✓

16.0

AN511A

Bolt



Comment: Qty.: 4.0000 Each(s)/Unit Total : 4.0000 Each(s)

Pick: Packing Kit

Qty Part Number

Description Batch

4 AN5-11A

Bolt M103044 - ✓ ✓

17.0

AN644A

Bolt



Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)

Pick: Packing Kit

Qty Part Number

Description Batch

2 AN6-44A

Bolt M100447 - ✓ ✓

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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Job Number: 29442

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Job Number:



Seq. #:

Machine Or Operation:

Description :

18.0

AN960JD10

Washer



Comment: Qty.: 8.0000 Each(s)/Unit Total : 8.0000 Each(s)

Pick: Packing Kit

Qty Part Number

Description Batch

8 AN960JD10

Washer M143274 ✓

19.0

AN960JD416

Washer



Comment: Qty.: 25.0000 Each(s)/Unit Total : 25.0000 Each(s)

Pick: Packing Kit

Qty Part Number

Description Batch

25 AN960JD416

Washer M101938 ✓

20.0

AN960JD516

Washer



Comment: Qty.: 8.0000 Each(s)/Unit Total : 8.0000 Each(s)

Pick: Packing Kit

Qty Part Number

Description Batch

8 AN960JD516

Washer M102939 ✓

21.0

AN960JD616

Washer



Comment: Qty.: 4.0000 Each(s)/Unit Total : 4.0000 Each(s)

Pick: Packing Kit

Qty Part Number

Description Batch

4 AN960JD616

Washer M102829 ✓

22.0

MS21042L3

Nut



Comment: Qty.: 8.0000 Each(s)/Unit Total : 8.0000 Each(s)

Pick: Packing Kit

Qty Part Number

Description Batch

8 MS21042L3

Nut (or -3) M1022170 ✓

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes ☒ No ☐ DQA: 7/9 Date: 07/03/06  
 QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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Job Number: 29442

Part Number: D206642211

Job Number:



Seq. #:

Machine Or Operation:

Description :

23.0

MS21042L4

Nut



Comment: Qty.: 12.0000 Each(s)/Unit Total: 12.0000 Each(s)

Pick: Packing Kit

Qty Part Number

Description Batch

12 MS21042L4

Nut (or -4)

M19185 ✓

24.0

MS21042L6

Nut



Comment: Qty.: 2.0000 Each(s)/Unit Total: 2.0000 Each(s)

Pick: Packing Kit

Qty Part Number

Description Batch

2 MS21042L6

Nut (or -6)

M100151 ✓

PC 7/02/06 (1)

25.0

QC4

INSPECT 100% KITS FOR COMPLETENESS



Comment: INSPECT 100% KITS FOR COMPLETENESS

PACKAGING RESOURCE #1

26.0

PACKAGING 1



Comment: PACKAGING RESOURCE #1

Identify and pack for shipping as per PPP D206-642-211

Location: 0

PC 7/13/06 (1)

27.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

PC 07/03/06 (1)

Job Completion



UL 07/03/06

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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## Process Sheet

Customer	: CU-DAR001 Dart Helicopters Services	Drawing Name	: HIGH GEAR SKIDTUBE ASSEMBLY 206 A/B
Job Number	: 29442A		
Estimate Number	: 10163		
P.O. Number	: N/A	Part Number	: D206642241
This Issue	: 11/14/2006 S.O. No. : N/A	Drawing Number	: D2650 REV E P1,3
Prsht Rev.	: NC	Project Number	: N/A
First Issue	: N/A Type : LANDING GEAR	Drawing Revision	: E
Previous Run	: 29441A	Material	: N/A
Written By	: <u>                    </u>	Due Date	: 12/5/2006
Checked & Approved By	: <u>                    </u>	Qty:	1 Um: Each
Comment	: Est Rev: M 04.12.02 Revised procedural steps KJ/JLM		

## Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0

DC

DOCUMENT CONTROL



Comment: DOCUMENT CONTROL

Photocopy bluefile &amp; type labels per PPP D206-642-241

CHG003

N/A

2.0

D2620

Bent 206 Skidtube



Comment: Qty.: 1.0000 Each(s)/Unit Total: 1.0000 Each(s)

Pick:

Qty Part Number Description Batch

1 D2620

Bent Tube 3" OD

B28932

DP 6-11-16

3.0

D32861

Doubler



Comment: Qty.: 2.0000 Each(s)/Unit Total: 2.0000 Each(s)

Pick:

Qty Part Number Description Batch

2 D3286-1

Doubler

B24206

Pm 06-12-27 (1)

4.0

D2647

Cap



Comment: Qty.: 1.0000 Each(s)/Unit Total: 1.0000 Each(s)

Pick:

Qty Part Number Description Batch

1 D2647

Fwd Cap

B24842

BE 6-12-12

5.0

LANDING GEAR 1

LANDING GEAR RESOURCE 1



Comment: LANDING GEAR RESOURCE 1

1-Deburr Fwd edge of tube

DP 6-11-16

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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Job Number: 29442A

Part Number: D206642241

Job Number:



Seq. #:

Machine Or Operation:

Description:

2- Remove ridge on inside of Fwd edge of tube as per Dwg D2650

DP 6-11-16

3-Weld Fwd Cap as per Dwg D2650. Use aluminum rod. Grind D2647 to fit as required.

Pick:

Qty Part Number Description Batch

A/R Aluminum Rod m/01010/m101446

BE 6-12-12

4-Grind weld flush to cap on top surface only.

5-Cut Aft end as per dwg 2650 from front of tube and Deburr

6-Remove inner indexing ridge on Aft end of skidtube as per Dwg D2650

7-Open holes for Aft end cap as per Dwg D2650 with #30 Drill Bit using DT8025.

8-Drill pilot holes using Dt 8167.

DP 6-12-20

9-Locate DT8732 from inner Aft saddle hole & 3rd crossbolt hole. Insert D3286-1 doubler using DT8732 & D206-642-241-T1, then locating doubler off of 3/16" holes, cleco DT8732 & doubler leaving DT8732 for added support.

pm 06-12-270

10- Drill D3286-1 doubler rivet holes in tube using # 40 drill, spot drilling doubler at the same time.

pm 06-12-270

11-Working from the center out, drill # 30 holes into D3286-1 doubler. Cleco each hole as it is being drilled. Verify angle of holes to accommodate rivet heads.

pm 06-12-270

12-Remove 3/16" cleco's only and open GHW holes to Ø0.500" as per Dwg D2650

pm 06-12-270

13-Remove D3286-1 doublers, identify orientation, deburr, then attach them to the workorder

pm 06-12-270

14-Remove indexing edge using DT8741 as per Dwg D2650

pm 06-12-270

15-C'sink GHW rivet holes as per Dwg D2650

pm 06-12-280

6.0

QC6

DIMENSIONAL CHECK



Comment: DIMENSIONAL CHECK

207/01/070

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
	01/01/09						
	17/11/11						

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes ☒ No ☐ DQA: ☒ Date: 07/03/06  
 QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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07-01-04	5-10	5 holes drilled when drilling through AL into S.S. doubler. Human error: hand to drill through AL into S.S. @ GHW location.	OSI 042	Fill holes with weld as per QSI 004, and grind flush. Drill & sink holes as per Dwg.	BE 07-01-08	07/04/09	OSI 042	07-01-04

NOTE: Date & initial all entries

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Drawing Name: HIGH GEAR SKIDTUBE ASSEMBLY 206 A/B

Job Number: 29442A

Part Number: D206642241

Job Number:



Seq. #:

Machine Or Operation:

Description :

7.0

LANDING GEAR 1

LANDING GEAR RESOURCE 1



Comment: LANDING GEAR RESOURCE 1

1-Open crossbolt holes to Ø0.3125" as per Dwg D2650

*Pmc 07-01-10 (1)*

2-Drill pilot holes using DT8028-3, then open to Ø0.297" as per Dwg D2650. Open Aft cap hole #6.

*Pmc 07-01-10 (1)*

3-Deburr tube and blow out chips from inside the tube

*Pmc 07-01-10 (1)*

8.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Chemical Conversion Coat as per QSI 005 4.1

*Pmc 07-01-10 (1)*

9.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

*BE 07-01-10 (1)*

10.0

LANDING GEAR 1

LANDING GEAR RESOURCE 1



Comment: LANDING GEAR RESOURCE 1

1-Open holes to finished size as per Dwg D2650, D2650-3 Drilling Detail (without cutting fluid)

*Pmc 07-01-10 (1)*

2-C'sink crossbolt spacer holes as per Dwg D2650(without cutting fluid)

*Pmc 07-01-10 (1)*

3-Deburr and blow out all chips from inside the tube

*Pmc 07-01-10 (1)*

11.0

QC6

DIMENSIONAL CHECK



Comment: DIMENSIONAL CHECK

*11/07/01/10 (1)*

12.0

CR3212404

Cherry Rivet



Comment: Qty.: 52.0000 Each(s)/Unit Total: 52.0000 Each(s)

Pick:

Qty Part Number

Description Batch

52 CR3212-4-04 Rivet

*\*M1021832\* M1025202 Pmc*  
*M10218 Pmc*  
*M1016920 Pmc 07-01-11 (1)*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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Date: Tuesday, 11/14/2006 10:11:46 AM  
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Job Number: 29442A

Part Number: D206642241

Job Number:



Seq. #:

Machine Or Operation:

Description :

13.0

D26543

206 I-Beam (Web)



Comment: Qty.: 1.0000 Each(s)/Unit Total: 1.0000 Each(s)

Pick:

Qty Part Number

Description Batch

1 D2654-3

Web

B29060

Pm 07-01-150

14.0

LANDING GEAR 1

LANDING GEAR RESOURCE 1



Comment: LANDING GEAR RESOURCE 1

1-Locate, install and rivet doublers as per Dwg D2650. Micro-shave rivets as required

Pm 07-01-120

2-Bond D2654-3 web in place as per QSI 015. Ensure holes line up. Allow 12 Hrs. cure time before cutting

Start Date: 07-01-15 Time: 9:15am

Finish Date: 07-01-25 Time: 1pm

Pick:

Qty Part Number Description Batch

A/R Sikaflex-291

m102672

Sikaflex expire date: 07-02-01

Pm 07-01-150

15.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

07-01-250

16.0

D2649

Crossbolt Spacer



Comment: Qty.: 18.0000 Each(s)/Unit Total: 18.0000 Each(s)

Pick:

Qty Part Number

Description Batch

18 D2649

Crossbolt spacer

B29329 BE 07-01-26

17.0

D32863

Spacer



Comment: Qty.: 2.0000 Each(s)/Unit Total: 2.0000 Each(s)

Pick:

Qty Part Number

Description Batch

2 D3286-3

Spacer

B24711 BE 07-01-26

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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Description :

18.0

LANDING GEAR 1

LANDING GEAR RESOURCE 1



Comment: LANDING GEAR RESOURCE 1

1-Insert D2649 crossbolt spacers. Weld as per QSI 004 and Dwg D2650. Remember to back drill each hole to 0.25" before welding the other side. Use aluminum rod.

Pick:

Qty Part Number Description Batch

A/R Aluminum Rod M 10/0/0 BE 07-01-26

2-Grind welds flush as per Dwg D2650. Pm 07-01-26 (1)

3-Using DT8733, insert (2) D3286-3 spacers as per QSI 004 and Dwg D2650. Remember to back drill each hole to Ø0.402" before welding other side. Use SS rod as required.

A/RSS Rod NONE BE 07-01-26 (1)

4-Counterbore 5/16" x 0.750" deep except 7th hole from Aft end as per Dwg D2650. Deburr Pm 07-01-29 (1)

19.0

CCR264SS33

Cherry Rivet



Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)

Pick:

Qty Part Number Description Batch

2 CCR264SS3-3 Rivets M18548 Pm 07-01-29 (1)

20.0

M7885343

Rivet



Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)

Pick:

Qty Part Number Description Batch

2 M7885/3-4-3 Rivets m19099 Pm 07-01-29 (1)

21.0

D2680041

Nut Plate



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Pick:

Qty Part Number Description Batch

1 D2680-041 Nut Plate B24263 Pm 07-01-29 (1)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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Part Number: D206642241

Job Number:



Seq. #:

Machine Or Operation:

Description :

22.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Install D2680-041 Nut Plate as per Dwg D2650

*Pms 07-01-29 (1)*

23.0

QC9

VISUAL WELDING INSPECTION



Comment: VISUAL WELDING INSPECTION

*07/01/30*

24.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

*07/01/30*

25.0

POWDER COATING

POWDER COATING



Comment: POWDER COATING

Powder Coat White Gloss (Ref. 4.3.5.1) as per QSI 005 4.3. Make sure Nut Plate Thread is protected using paint screw, and mask GHW studs.

*M10 2104*

*Tach ups*

*FR*

*M-H*

*07/02/05*

*07-02-010*

*07/02/13*

*(1)*

*(Pro)*

26.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

*M10 2104*

*07/02/27*

*am*

*07/02/26*

27.0

D26483

Wearpad



Comment: Qty.: 4.0000 Each(s)/Unit Total : 4.0000 Each(s)

Pick:

Qty Part Number

Description

Batch

4 D2648-3

Wearpad

*29777*

28.0

D265613

Wearplate



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Pick:

Qty Part Number

Description

Batch

1 D2656-13

Wearshoe

*13-29996*

*29009*

*yl*

*07/02/27*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes ☒ No ☐ DQA: ☒ Date: 07/03/02  
 QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
07-02-06	25.0	Oil came out of some rivets, after powder coating.  R.C. oil remaining in the rivets. Tube washin' wiped then dried by heat, then powder coated.	<i>[Signature]</i> QSI042	Sand off powder coat; re-clean the affected area as per QSI 005. Re-powder coat as per QSI 005. Ensure ALL parts are washin' wiped BEFORE <del>then</del> powder coating.	<i>[Signature]</i> 07-03-01	<i>[Signature]</i> QSI042	<i>[Signature]</i> 07-02-06	

NOTE: Date & initial all entries

Date: Tuesday, 11/14/2010 10:11:46 AM  
User: Kim Johnston

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: HIGH GEAR SKIDTUBE ASSEMBLY 206 A/B

Job Number: 29442A

Part Number: D206642241

Job Number:



Seq. #:

Machine Or Operation:

Description :

29.0

D265621

Wearplate



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Pick:

Qty Part Number

Description

Batch

1 D2656-21

Wearshoe

~~B 14364~~

14364

30.0

D265633

Wearplate



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Pick:

Qty Part Number

Description

Batch

1 D2656-33

Wearshoe

~~B 29452~~

29452

31.0

D34291



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Pick:

Qty Part Number

Description

Batch

1 D3429-1

Wearpad

~~B 30237~~

07-02-28

(1)

32.0

ALS41032130

Insert



Comment: Qty.: 44.0000 Each(s)/Unit Total : 44.0000 Each(s)

Pick:

Qty Part Number

Description

Batch

44 ALS4-1032-130 Inserts

~~M 102475~~

or (see QSI 017)

33.0

AN960JD10L

Washer



Comment: Qty.: 44.0000 Each(s)/Unit Total : 44.0000 Each(s)

Pick:

Qty Part Number

Description

Batch

44 AN960JD10L

Washer

~~102832~~

YR 07/02/27

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



Date: Tuesday, 11/14/2006 10:11:46 AM  
User: Kim Johnston

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: HIGH GEAR SKIDTUBE ASSEMBLY 206 A/B

Job Number: 29442A

Part Number: D206642241

Job Number:



Seq. #:

Machine Or Operation:

Description :

34.0

MS27039108

Screw



Comment: Qty.: 44.0000 Each(s)/Unit Total : 44.0000 Each(s)

Pick:

Qty Part Number Description Batch

44 MS27039-1-08 Screw 102630

35.0

D26511

Plug



Comment: Qty.: 18.0000 Each(s)/Unit Total : 18.0000 Each(s)

Pick:

Qty Part Number Description Batch

18 D2651-1 Plugs 29330

36.0

D26513

O-Ring



Comment: Qty.: 18.0000 Each(s)/Unit Total : 18.0000 Each(s)

Pick:

Qty Part Number Description Batch

18 D2651-3 O-Rings 29006

37.0

MS27039406

Screw



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Pick:

Qty Part Number Description Batch

1 MS27039-4-06 Screw 6874

38.0

AN960JD416

Washer



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Pick:

Qty Part Number Description Batch

1 AN960JD416 Washer 103338

*yl* 07/02/27

39.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1]

1- Install inserts & wearpads as per dwg D2922. Use a drop of Sikaflex inside insert holes before installing wearpad/wearplate.

A/R Sikaflex-291 102672

*yl* 07/02/27x1

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Tuesday, 11/14/2006 10:11:47 AM  
User: Kim Johnston

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: HIGH GEAR SKIDTUBE ASSEMBLY 206 A/B

Job Number: 29442A

Part Number: D206642241

Job Number:



Seq. #:

Machine Or Operation:

Description :

Sikaflex expire date: 02/07

2-Install D2651-3 O-Rings on D2651-1 plugs with Petroleum Jelly and install plugs as per Dwg D2650  
(D2650-3 detail). Clean excess adhesive.

3-Install MS27039-4-06 Screw as per DEO 9153.

YL 07/02/27

40.0

D2646

Aft Cap



Comment: Qty.: 1.0000 Each(s)/Unit Total: 1.0000 Each(s)

Pick:

Qty Part Number Description Batch

1 D2646 Aft Cap 30119

41.0

MS27039108

Screw



Comment: Qty.: 2.0000 Each(s)/Unit Total: 2.0000 Each(s)

Pick:

Qty Part Number Description Batch

2 MS27039-1-08 Screw 102630

42.0

AN960JD10L

Washer



Comment: Qty.: 2.0000 Each(s)/Unit Total: 2.0000 Each(s)

Pick:

Qty Part Number Description Batch

2 AN960JD10L Washer 102832

YL 07/02/27

43.0

HAND FINISHING1

HAND FINISHING R

OURCE #1



Comment: HAND FINISHING RESOURCE #1

1-Install D2646 Aft Cap and seal with Sikaflex. Clean excess adhesive

A/R Sikaflex-291 102672

Sikaflex expire date: 02/07

2-Wing Walk as per Dwg D2650-3 and QSI 005 4.4

Batch: M103480

YL 07/02/27  
M-R/JS 07-02-27

# Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: 1 Date: 07/03/06  
 QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Tuesday, 11/14/2006 10:11:47 AM  
User: Kim Johnston

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: HIGH GEAR SKIDTUBE ASSEMBLY 206 A/B

Job Number: 29442A

Part Number: D206642241

Job Number:



Seq. #:

Machine Or Operation:

Description :

44.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

*07-03-01*

45.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

*07-03-01*

46.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and pack for shipping as per PPP D206664241 IF APPLICABLE

Location:

PPP Rev:

*PPP*

*D206642241*

*B29442*

*2 7/3/05*

47.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

*(U)*  
*D206642241*

Job Completion



*U 07-03-06*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



RELEASED  
16 04 17

DESIGN <i>UP</i>	DRAWN BY <i>P</i>	DART AEROSPACE USA, INC. PORT HADLOCK, WA	
CHECKED <i>PH</i>	APPROVED <i>H</i>	DRAWING NO. D2650	REV. E SHEET 1 OF 5
DATE 06.03.30		TITLE 206/407 SKIDTUBE ASSEMBLIES	SCALE NTS
A	97.03.25	NEW ISSUE	
B	97.06.26	AS MANUFACTURED CHANGES	
C	97.10.29	CHANGE HOLE PATTERN AND FRONT END	
D	04.05.17	REDRAW; INCORP. DE09136/9153/9163 MOD GROUND HNDLNG ON D2650-1/-3	
E	06.03.30	RMV C'BORE, CHG DRILL, ADD CHAMFER	

Qty -1	Qty -3	Qty -5	Qty -7	Part Number	Description
X				D2650-1	SKIDTUBE ASSEMBLY
	X			D2650-3	SKIDTUBE ASSEMBLY
		X		D2650-5	SKIDTUBE ASSEMBLY
			X	D2650-7	SKIDTUBE ASSEMBLY
1	1	1	1	D2600-1-160	EXTRUSION
1				D2654-1	WEB
	1			D2654-3	WEB
		1		D2654-5	WEB
			1	D2654-7	WEB
1	1	1	1	D2646	AFT CAP
1	1	1	1	D2647	CAP
16	17	19	23	D2649	CROSS BOLT SPACER
16	18	14	22	D2651-1	PLUG
16	18	14	22	D2651-3	O-RING
1	1	1	1	D2680-041	NUT PLATE
2	2			D3286-1	DOUBLER
2	2			D3286-3	STUD
42	44	54	60	ALS7-1032-130	INSERT (or AKS4-1032-130, ALS4-1032-130, ALS7-1032-130)
2	2	2	2	AN960JD10L	WASHER
2	2	2	2	CCR264SS3-3	RIVET
2	2	2	2	CR3212-4-03	RIVET
2	2	2	2	MS27039-1-08	SCREW
1	1	1	1	MS27039-4-06	SCREW
1	1	1	1	AN960JD416	WASHER
52	52			CR3212-4-04	RIVET

#### NOTES

- 1) WELD PER DART QSI 004
- 2) DAMAGE TOLERANCE ON FWD BEND:  
THERE SHOULD BE NO VISIBLE WRINKLES IN THE BEND FROM THE GROUND TO A HEIGHT OF 5 INCHES ABOVE THE GROUND. IT IS ACCEPTABLE TO POLISH OUT GOUGES UP TO 0.020 DEEP IN THE BENT PORTION OF THE TUBE. A MAXIMUM REDUCTION IN DIAMETER OF 0.150" IS ACCEPTABLE IN THE BENT PORTION OF THE TUBE.
- 3) BOND WEB INTO OUTER TUBE WITH SIKAFLEX-241/-291 ADHESIVE PER DART QSI 015
- 4) INSERT D2651-1 PLUG C/W D2651-3 O-RING IN HOLES MARKED 'P' (BOTH SIDES OF TUBE)
- 5) FINISH: -CHEMICAL CONVERSION COAT PER DART QSI 005 4.1  
-POWDER COAT WHITE (4.3.5.1) PER DART QSI 005 4.3  
-BLACK ANTI-SKID PAINT AS INDICATED TO 0.5 ABOVE LOCATION RIDGE PER DART QSI 005 4.4
- 6) DRILL Ø0.297 FOR ALS7-1032-130 INSERTS USING TEMPLATE DT8056-1 ON -1 TUBE, DT8056-3 ON -3 TUBE, DT8056-5 ON -5 TUBE, AND DT8056-7 ON -7 TUBE. INSTALL INSERTS AFTER FINISH.
- 7) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

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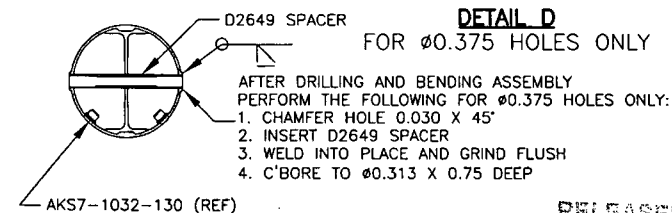
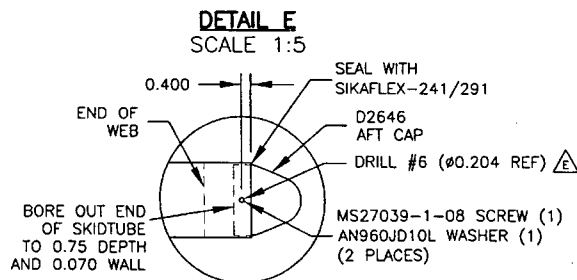
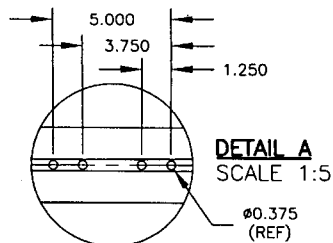
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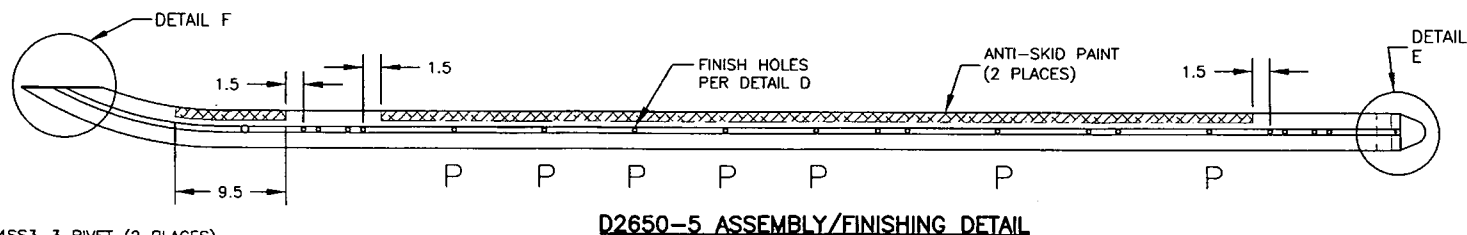
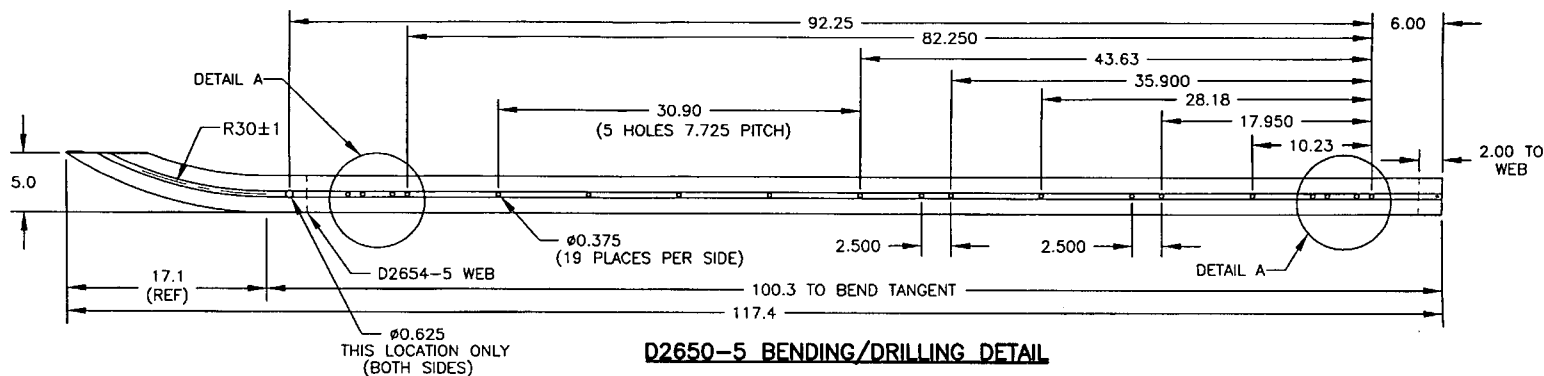








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**DETAIL F (NOT TO SCALE)**

1. CUT TUBE LEVEL
2. REMOVE RIDGE ON FWD SIDE
3. LOCATE D2647 (TRIM AS NECESSARY)
4. WELD D2647 IN PLACE PER DART QSI 004
5. GRIND FLUSH
6. RIVET D2680-041 NUT PLATE IN PLACE

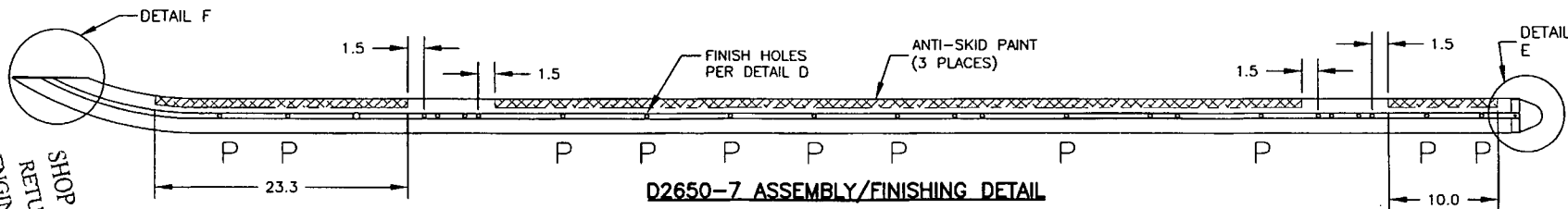
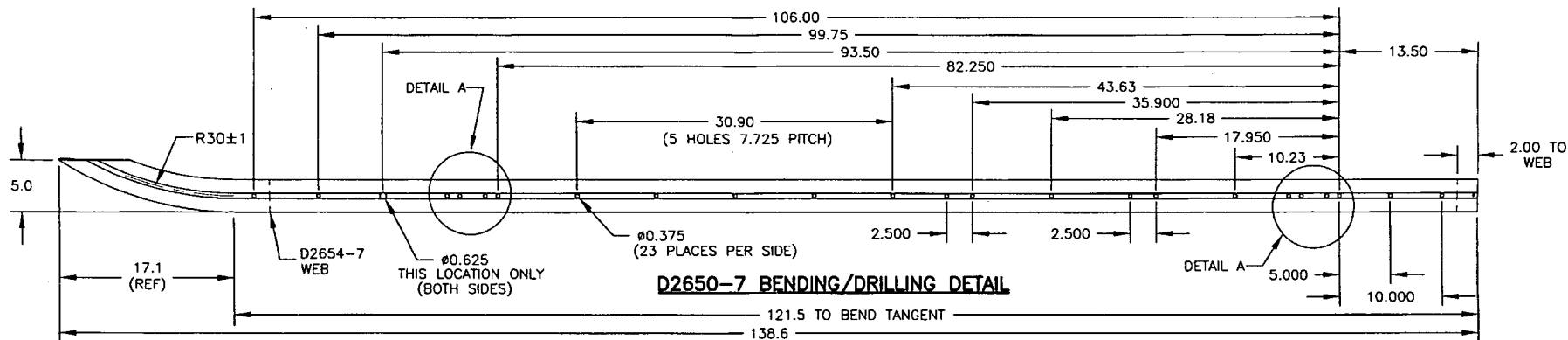
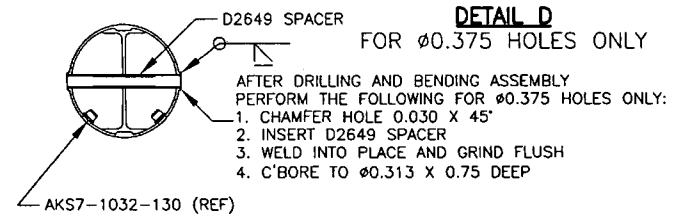
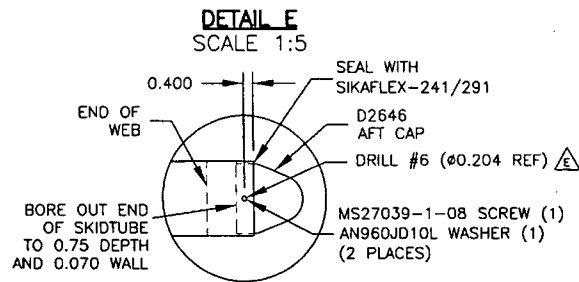
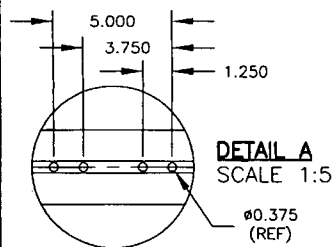
NOTE: MASK THREADS IN D2680-041 PRIOR TO FINISH



REMOVE RIDGE ON INSIDE OF SKIDTUBE LEAVE 0.070 MIN.

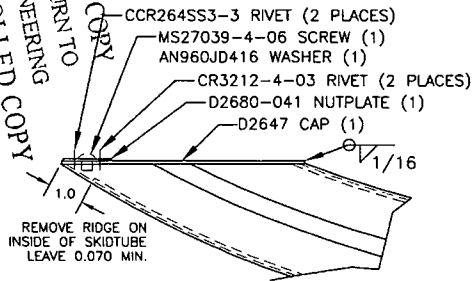
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CHECKED	PH	APPROVED	#	DRAWING NO.	REV. E
DATE	06.03.30	TITLE	SKIDTUBE	D2650	SHEET 4 OF 5
					SCALE 1:10



NO. 29442A  
WORK ORDER  
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ORIENTATION OF  
D2680-041



- DETAIL F (NOT TO SCALE)**
1. CUT TUBE LEVEL
  2. REMOVE RIDGE ON FWD SIDE
  3. LOCATE D2647 (TRIM AS NECESSARY)
  4. WELD D2647 IN PLACE PER DART QSI 004
  5. GRIND FLUSH
  6. RIVET D2680-041 NUT PLATE IN PLACE

NOTE: MASK THREADS IN D2680-041 PRIOR TO FINISH

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down #

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CHECKED	DATE	APPROVED		DRAWING NO.	REV. E
PH	06.03.30			D2650	SHEET 5 OF 5
				TITLE	SCALE
				SKIDTUBE	1:10



NO. 86

AWS D17.1.2001  
QUALIFICATION TEST RECORD

Name Barclay Elliott  
Joint Welding Procedure Tig  
Part number and Job number 206 242 241 / B 293 74 A

TEST WELDS REQUIRED

BASE METAL Alum WELDING PROCESS Tig  
Penetration Complete ☐ Partial ☒ Single Weld ☒ Double Weld ☐  
Current AC ☒ DC ☐ Backing Y ☐ Z ☒

	Position	Vertical	Down	Up
Sheet Groove	1G <input type="checkbox"/>	2G <input type="checkbox"/>	3G <input type="checkbox"/>	4G <input type="checkbox"/>
Tube Groove	1G <input type="checkbox"/>	2G <input type="checkbox"/>	5G <input type="checkbox"/>	6G <input type="checkbox"/>
Sheet Fillet	1F <input type="checkbox"/>	2F <input type="checkbox"/>	3F <input type="checkbox"/>	4F <input type="checkbox"/>
Tube Fillet	1F <input type="checkbox"/>	2F <input type="checkbox"/>	4F <input type="checkbox"/>	5F <input type="checkbox"/>

Crossbolt Spacer Welded into Skid

TEST RESULTS

Visual Pass ☒ Fail ☐  
Penetration Pass ☒ Fail ☐

Crossbolt Spacer Pass ☒ Fail ☐

The above named individual is qualified in accordance with AWS D17.1.2001 to weld

Date of Test Coupon 07/01/16 Qualifier David

